



INDUSTRIAL POWER TRANSMISSION & MOUNTED BEARING PRODUCTS

More than a Manufacturer

DISCOVER THE PTI DIFFERENCE

If you've ever heard the name PTI mentioned when it comes to Industrial Mechanical Power Transmission and Mounted Bearing products and expertise, you know that it's our reputation for service that sets us apart.

With many years of industry experience, our team is ready to solve even your most complex challenges with Metric or American Standard industrial power transmission components. PTI is not simply a manufacturer - we're a complete resource for keeping your world in motion.

Our philosophy is that each of our clients deserves individual attention, because we know how much it matters to those we serve. It is that standard of excellence that we hold ourselves to each and every day, because we know your business demands nothing less than the best quality, knowledge, and support.

It isn't what most manufacturers of bearings and power transmission products do - but then again, PTI is far more than just a manufacturer.

If you're new to PTI, we invite you to put that difference to work for you today. We'd be proud to be your trusted partner!

**We Revolve
Around You.**



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Company Overview

THE PTI STORY

P.T. International Corp. (PTI) was founded in 1994 in Charlotte, North Carolina, USA. We originally provided primarily Metric industrial power transmission components and mounted bearings. As demand increases, we continue to add products and extend our range and stocking commitment.

PTI has evolved to become a leading provider of high-quality Metric and American Standard industrial power transmission components and mounted bearings. PTI is the US partner for select European manufacturers including Winkel heavy linear products and systems and Eich specialty, spring bushed steel industrial bearings.

We offer over 25,000 SKU's – most of which are available from stock. Our engineering team can help customize product as well as develop private brand strategies to fit your business needs.

We partner with distributors and OEMs to help provide customers with the best products, answers, and knowledge necessary to create superior, customized results.

Our experienced design engineers create CAD drawings and models to ensure components are manufactured to PTI specifications and quality standards. Our knowledgeable and friendly customer service team works to provide you with the best all-around experience every day. We are proud to be ISO 9001 Certified.



Note: This brochure contains a sampling of our newest and most popular product offerings. For more information on our full product offering, please contact us for a complimentary product catalog or assistance with product selection including custom products and private branding opportunities.

MOUNTED BALL BEARINGS

ASSEMBLED IN CHARLOTTE, NC—USA

PTI proudly offers the widest assortment of housings and ball bearing inserts in the industry. We stock over 700 housing types including popular European Metric, Asian Metric, and American Standard configurations. Stock product available through 140mm (Metric), 4" (American Standard).

HOUSING MATERIALS



- Cast Iron
- Ductile Iron
- Pressed Steel
- Stainless Steel
- Cast Steel
- Thermoplastic
- Nickel Plated

HOUSING STYLES



Standard Pillow Blocks



Tapped Base Pillow Blocks



2-Bolt Flanges



3-Bolt Flanged Brackets



4-Bolt Flanges



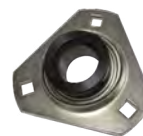
Piloted Flanges



Ductile 3-Bolt Flanges



Cast Iron 3-Bolt Flanges



Pressed Steel Flanges



Pressed Steel with Rubber Isolator Pillow Blocks



Light Duty Flanges



Swivel Flanges



Take-Up Bearings



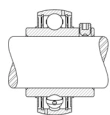
Hanger Bearings



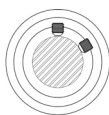
Cylindrical Bearings

SHAFT LOCKING METHODS

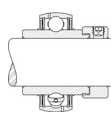
There are four (4) standard methods to secure mounted ball bearings to a shaft – set screw locking, eccentric locking collar, concentric clamp collar and tapered adapter sleeve. We offer all four.



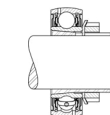
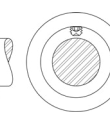
Set Screw Locking
(UC)



Eccentric Locking Collar
(HC)



Concentric Clamp Collar
(CL)



Tapered Adapter Sleeve
(UK)

PTI AND EURO SERIES

PTI offers two brands of inserts in set screw and eccentric mount. The PTI Series uses a steel cage and is grease lubricated with a steel flinger and a lip seal. The Euro Series is a popular European brand that uses a molded nylon cage for higher speeds. Euro Series bearings are grease lubricated and have a lip seal between two pieces of zinc plated steel.



UC PTI



UC Euro



HC PTI



HC Euro

ADDITIONAL OPTIONS

Other options and modifications available upon request.



Triple Lip Seals
(L3)



High or Low Temperature



Inserts with Solid Lubricants for
Harsh Environments



Custom Engineered Units



Inserts with C4 Clearance & Silicone Seals for High Temp (HT) or Low Temp (LT) applications available from stock.

CORROSION RESISTANT MOUNTED BALL BEARINGS

ASSEMBLED IN CHARLOTTE, NC—USA

PTI offers a wide assortment of corrosion resistant units to meet the demands of caustic environments and high pressure washdown found in the food, beverage, and pharmaceutical industries.

Our Stainless Steel inserts are available with either set screw or eccentric locking collars. Each bearing is lubricated with Mobil FM222, a NSF H-1 approved grease.

HOUSING MATERIALS

- Stainless Steel
- Thermoplastic (White or Black)
- Nickel Plated

HOUSING STYLES



- Pillow Block
- Tapped Base
- 2-Bolt Flange
- 4-Bolt Flange
- 3-Bolt Flanged Bracket
- Piloted Flange
- Wide-Slot Take-Up

STAINLESS STEEL INSERT TYPES



SUC Set Screw Wide Inner Ring



SHC Eccentric Wide Inner Ring



SSB Set Screw Narrow Inner Ring



SSER Set Screw Cylindrical O.D.

AVAILABLE OPTIONS



Closed Cover (CL)



Open Cover (OP)



Flange Back Cover (BK) for Thermoplastic Housings*



Stainless Steel End Covers**



Light Duty Stainless

* Narrow Inner Ring Inserts Only

** We now offer Stainless Steel end covers for our Stainless Steel housings. Stainless Steel end covers are detectable by metal detection for added safety.

Interested in private branding?
Ask us about how we can help
with custom laser etching
services.



SRE & SR2200 MOUNTED SPHERICAL ROLLER BEARINGS

ASSEMBLED IN CHARLOTTE, NC—USA

SRE and SR2200 products are designed to meet standard "E" and "2000" series dimensions and are widely used in bulk material handling, mining, aggregate, food (grain handling conveyors), bucket elevators, and other applications in heavy industries. PTI SRE and SR2200 assemblies feature the heaviest, most rugged housings in the industry.

KEY PRODUCT FEATURES:



Ductile Iron Housings – for added strength

- Designed using FEA (Finite Element Analysis)
- Most rugged, heaviest housings in the industry
- Solid base design for added strength
- Elongated bolt holes ensure interchangeability with all major competitive brands

Standard "R3" HNBR Triple Lip Seals

- Excellent protection against contamination
- Operating temperature range of -22°F to +290°F
- Improved abrasion resistance
- Industry leading chemical and ozone resistance

Seals and End Cover Options

- Teflon and Steel labyrinth seals available for high temperature for high speed applications
- Open and closed end covers are available for added safety and sealing

Additional Features

- Set screw locking collars for easy installation
- Dual collars standard above 4" shaft, optional for 2-7/16", 2-15/16", 3-7/16", and 3-15/16"
- Expansion and non-expansion versions available from stock
- Expansion capability up to 7mm (>1/4")
- Maximum misalignment capabilities

39 SHAFT SIZES AVAILABLE FROM 1-7/16" – 5" & 30MM – 125MM

Multiple Housing Styles for a Wide Range of Applications

PILLOW BLOCKS



SRE-PB2
2-Bolt Pillow Block



SR2-PB2
2-Bolt Pillow Block



SRE-PB4
4-Bolt Pillow Block



SR2-PB4
4-Bolt Pillow Block



SRE-WSTU
Wide Slot Take-Up

FLANGES



SRE-FB4
4-Bolt Flange



SR2-FB4
4-Bolt Flange



SRE-FC
Piloted Flange



SR2 FB
3-bolt flanged bracket



SR2-FC
Piloted Flange



FAN & BLOWER BLOCKS / DOUBLE PILLOW BLOCKS

ASSEMBLED IN CHARLOTTE, NC—USA

These heavy-duty bearings are ideal for Fans, Blowers, Bench Grinders, Buffers, and Jack Shafts. All housings are equipped with two bearings, each with individual grease wells, and feature Ductile Iron housings to provide superior strength over the more common Cast Iron housing material.



PRODUCT DETAILS & FEATURES:

- Seven housing sizes from stock
 - Inch Shaft Sizes from 15/16" thru 2-7/16"
 - Metric Shaft Sizes from 25mm thru 60mm
- Housings equipped with two bearings, each with individual grease wells
- Choice of shaft attachment method:
Set Screw or Concentric Locking Collars
- Solid base for added durability
- Interchanges easily with competitive brands
- Ductile Iron housings which offer significant strength over more common Cast Iron housings
- Operating temperature range between -40°F and +200°F

WIDE SLOT TAKE-UP FRAMES

ASSEMBLED IN CHARLOTTE, NC—USA

PTI TUWS series Wide Slot Take-Up Frames are fabricated from heavy-duty Plate Steel. The frames are assembled so that the fit between the frame and mating bearing fit together with less clearance than competitive brands, allowing for smoother operation.



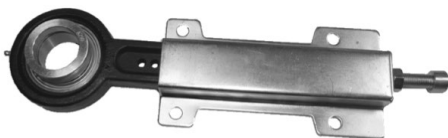
PRODUCT DETAILS & FEATURES:

- Interchangeable with competitive brands
- Welded Steel construction
- Compact design
- Side mount
- Sizes 300, 308, 400, and 502
- Travel lengths of 6", 12", 18" and 24"

PHUSE TAKE-UP FRAMES

ASSEMBLED IN CHARLOTTE, NC—USA

PTI PHUSE Series Take-Up Frames provide for a simple, economical solution in applications requiring the ability to adjust belt tension. They include a Cast Iron housing for the bearing and a Plate Steel cover connected to a threaded rod to allow for tensioning.



PRODUCT DETAILS & FEATURES:

- Interchangeable with competitive brands
- Compact design
- Side mount
- Easy adjustment
- 5 sizes, 25mm thru 50mm and 7/8" thru 2" bore
- Travel lengths up to 80mm (3.15")



SPLIT PILLOW BLOCKS & METRIC PLUMMER BLOCKS

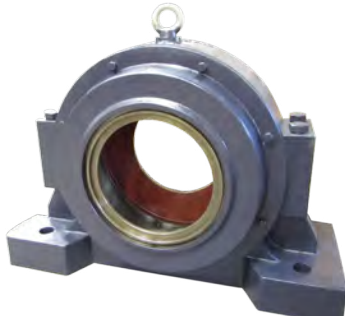
SAF/SDAF SPLIT PILLOW BLOCKS

PTI stocks the widest range of split cap pillow blocks in the industry. Our SAF and SDAF blocks are available in stock from 3/4" up to 24" or 20mm up to 400mm with larger sizes available on request. Multiple seal options are available to suit every application, and they're available in both 2-bolt and 4-bolt housing styles.



Solid base housing design stocked in three different materials

- Cast Iron – SAF
- Ductile Iron – SADF
- Cast Steel – SAFS



SDAF Asymmetric Series Pillow Blocks allow the bearing to be positioned closer to the load to reduce shaft bending moment thereby increasing L-10 life. These units are typically used on shaft sizes exceeding 18", but smaller units are available.

SEAL OPTIONS *

*Additional seal options available



LER Standard Labyrinth Seal



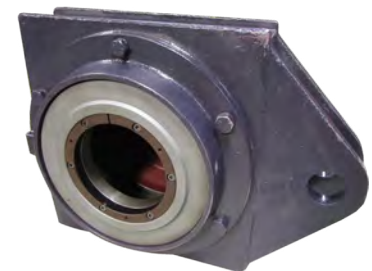
PER Labyrinth Seal with O-ring for snug fit on the shaft



EPR End Cover to seal one end of the housing

Complete assemblies include housing, two seals, stabilizing ring, bearing and adapter sleeve.

METRIC PLUMMER BLOCKS



SNG Metric Plummer Blocks are interchangeable with other SN designs. They are available in 200, 300, 500, and 600 series. SNG units can be used with spherical roller bearings or double-row ball bearings.

- SSNG - Ductile Iron, 2-bolt
- FSSNG - Ductile Iron, 4-bolt

Metric Plummer Blocks are designed for 230, 231, and 232 series bearings. They are available in Cast Iron, Ductile Iron, or Cast Steel through a 400mm shaft diameter.

HSPA Take-Up Units are generally made-to-order and can be provided in shaft sizes through 360mm. Standard units accommodate 222, 230, 231, or 232 series roller bearings.

BEARING INSERT OPTIONS



Spherical Roller Ball Bearings

- 222, 223, 230, 231 and 232 series
- Heavier loads, lower speeds



Double Row Ball Bearings

- 1200, 1300, 2200 and 2300 series
- Lighter loads, higher speeds

ADAPTER SLEEVES – STANDARD & HYDRAULIC



H-Series Adapter

- Metric threads
- Inch or metric bores



Hydraulic Adapter

- Allows for removal using hydraulic pressure
- Typically offered as standard above 8" bore size



SNW Adapter

- Inch threads
- Inch bores



Hydraulic Mounting Units*

A hydraulic mounting nut is a reusable tool used to assist with bearing installation.

It contains a piston that pushes on the inner ring of the bearing as hydraulic pressure is applied, gently pushing the bearing up the tapered adapter sleeve to its final position.

The process removes internal clearances from the bearing as the inner ring expands, effectively creating a press fit onto the shaft.

* Ask about our rental options.

OTHER OPTIONS



Spanner Wrenches for use through size 44 (8" bore) are stock. For larger bearings, a hydraulic nut is recommended.



Locknuts and Lockwashers are available separately to secure direct mount (straight bore) bearings to a shaft.



Jackscrews can be added to locknuts to assist with mounting. These screws push on the inner ring of the bearing.



Both Withdrawal Sleeves and Hydraulic Withdrawal Sleeves assist with mounting and removal. Withdrawal sleeves include threads on the large end of an adapter sleeve. Hydraulic withdrawal sleeves have oil grooves on the sleeve OD and ID.



Custom Units are also possible. Contact PTI for more information.

SEAL OPTIONS FOR METRIC PLUMMER BLOCKS*



TS



TAC



TNF

*Multiple seal options available to suit every application.

KEY PRODUCT FEATURES

- Among the heaviest in the industry
- Designed using Finite Element Analysis (FEA)
- Rugged base provides superior housing strength and allows for oil equalization under bearing seat – ensuring a balanced oil level on each side of the bearing
- Housing caps and bases paired to ensure controlled bearing fit
- Suitable for grease or oil lubrication
- Double row ball bearings available for high speeds
- Pry slots make housing disassembly simple (match marks also possible)
- Housings include stabilizing ring and LER seal
- 222, 223, 230, 231 & 232 series feature spherical roller bearings



WINKEL COMBINED BEARINGS & LINEAR SYSTEMS



WINKEL heavy duty linear components and systems feature Combination Bearings and Profiles that provide precision linear motion in demanding environments. Combination Bearings fit precisely into channels providing linear guidance with high radial and thrust loading. Anticorrosion protection options are also available as required based on application needs.

COMBINED BEARINGS



Fixed adjustable and high temperature versions are standard.

HEAVY DUTY COMBINED BEARING FOR HARSH ENVIRONMENTS



Allow load control and ultimate protection of rolling elements. These units allow for re-lubrication and they can be provided with special Duralloy (thin dense chrome) coatings or in Stainless Steel (in select sizes) for both bearings and profiles.

COMBINED BEARING WITH FLANGE PLATES AND AXIAL ADJUSTMENT SHIMS



Square and rectangular flange plates allow for easy mounting and shims ensure proper fit. Lube fittings on the side of the flange plates allow for easy re-lubrication.

LINEAR SYSTEMS



WINKEL Systems encompass four (4) basic categories: Vertical, Multi Axis Systems, Telescoping, and Special Purpose Units. WINKEL units are robust and provide heavy duty linear motion for demanding material handling applications. Linear Systems requiring repetitive linear movements - such as positioning, lifting or rotational sequencing - are all possible with WINKEL kinetic designs. WINKEL Systems are custom designed and system possibilities are endless. Every system is fully assembled and tested prior to shipping.

Contact PTI to learn more and discuss how a WINKEL System can meet your specific application needs.

WINKEL BEARING AND RAIL



PTI stocks the most comprehensive product offering from WINKEL, the originator of Heavy Duty Linear Motion. Our Charlotte warehouse stocks 14 standard profile sizes in six (6) meter lengths. Longer lengths are available on a made-to-order basis.



EICH ROLLER BEARINGS



Eich is the industry leader for high temperature, heavy load bearings. Eich Bearings are frequently used in Steel Mills or applications of extreme temperature such as furnaces or continuous casters.

The Spring Wound Races with a high tension wrap of high-temp spring steel ensure a tight spring fit onto the shaft as well as into the cylindrical bore of the roll or housing.

Eich bearings are designed to operate in the most challenging environments including high temperatures, extreme loads and contaminated conditions.



BR - SERIES



Solid roller designs are ideally suited for foot rolls (upper segment) of continuous casters in steel mills. They are generally used on billet, slab, bloom, or beam blank casters. No other bearing offers the ability to handle such extreme temperatures and high load carrying capabilities.

B - SERIES



Bearings are a spiral-wound roller design with flexible wound races allowing for the most extreme operating temperatures (600°C or 1000°F). These bearings can withstand extreme temperatures and can absorb impacts from billets or slabs.

WATER COOLED SPLIT BEARINGS



The races are horizontally split and allow for simple roller and race replacement without moving the equipment or rolls in which they are mounted while maintaining a safe operating temperature and maximum support to the rolls.

SACRB BEARINGS



These units combine the load carrying ability of a cylindrical roller bearing, the misalignment features of a spherical bearing, and the expansion (float) capability which makes this bearing one of the most versatile and capable units on the market today.



ROLLER CHAIN—ANSI AND METRIC



PTI offers a wide variety of chains for virtually all applications.

Metric (British Standard) and ANSI precision roller and conveyor chains stocked in single, double and triple strands (quadruple strands in select sizes).

- Also available in Nickel Plated and Stainless Steel
- Metric Attachment, Agricultural, and Stainless Steel
- Conveyor and Specialty Chain
- Lumber Chains
- Hollow Pin Chains
- Marathon Lube-Free Chain
- And more...

AVAILABLE CONFIGURATIONS INCLUDE:

EXTENDED PINS ONE SIDE, EVERY PITCH

HOLLOW PIN, STRAIGHT OR FIGURE 8 SIDE PLATES



BENT TAB, ONE SIDE OR BOTH SIDES

STRAIGHT TAB, ONE SIDE

BENT TAB, BOTH SIDES, ON OUTER LINKS



CONVEYOR AND RUBBER TOP CHAIN

ENGINEERED CHAIN



A wide assortment of custom chain products is available. Contact PTI with your application needs.



SPROCKETS AND ACCESSORIES

METRIC TL SPROCKETS



Mounted with standard TL tapered bushings from 1008 thru the 4040 series (4" or 110mm shaft diameter)

STAINLESS STEEL (AISI 304L) METRIC SPROCKETS



Provide corrosion resistance and allow wash-down capability. PTI stocks sizes ISO 06B thru 16B (3/8" – 1" pitch) and from 12 to 25 and 30 teeth.

HUB TYPE METRIC SPROCKETS



Available with your choice of a minimum plain bore (pilot bore) or finished bore sizes.

METRIC PLATE SPROCKETS



For single, double or triple strand chain, plate sprockets are an economical choice and allow direct mounting to the hub or shaft assembly.

METRIC IDLER SPROCKETS



Provides tension for chain drives and can be used within a tension arm assembly or individually mounted to position the drive.

METRIC DOUBLE-SINGLE SPROCKETS



Allows for two single strands of chain on just one sprocket to control drive units that must index in pairs.

WELD-ON HUBS



Often used to simplify mounting and popular for large plate sprockets or gears.

TL TAPER BUSHINGS



Stocked from 1008 thru 5050 sizes covering thru 5" or 125mm shaft sizes.

CUSTOM SPROCKETS



Large diameter steel or cast iron units for single, duplex or triple strand can be made to order.

ROLL-RING APPLICATION PRODUCT



Keeps chain aligned. No adjustments – ever! Installs in just seconds and stays put. Reduces downtime. No alignment, no brackets to mount. Dampens chain whip, reducing wear and noise of the drive.

Great for reversing drives. Operating temperature range from -4°F to +158°F. Duplex or triple strand chain? Use two or three side-by-side.

ROLL-RING®



METRIC | BELT DRIVE PRODUCTS, SHAFT COUPLINGS, ROD ENDS, SPUR GEARS AND RACKS

PTI stocks a wide range of Cast Iron drive components for belted applications.

METRIC V-BELT TL SHEAVES (SPZ, SPA, SPB, SPC)



Stocked up to 1250mm pitch diameter and up to 10 grooves on most sizes.

METRIC VARIABLE PITCH TL PULLEYS



Allow for speed adjustment of the driven shaft and available in Z, A and B belt sections.

METRIC HTD SPROCKETS



Available in a tooth pitch of 5mm, 8mm and 14mm and stocked in several standard widths for standard HTD belts.

METRIC SUPER TORQUE TL TIMING PULLEYS



8mm or 14mm pitch sizes and available in belt widths up to 85 and 170mm.

METRIC XL, L AND H SYNCHRONOUS TL TIMING PULLEYS



Available in 3 pitch sizes: XL (1/5" pitch), L (3/8" pitch) and H (1/2" pitch) and a variety of standard belt widths up to 3 inches.

T-SERIES AND AT SERIES METRIC TIMING PULLEYS



A trapezoidal tooth form available in three popular sizes: 2.5, 5 and 10 mm. The AT tooth form is a curvilinear pitch form available in two sizes: 5 and 10mm.

METRIC ROD ENDS

- Standard and heavy-duty rated units including designs capable of high dynamic, high static axial loads and high speeds.
- Stainless steel units can be applied in corrosive environments.
- Right and left, male and female threaded units are all standard stock.
- Additional rubber seals and neoprene protector caps available.
- Custom designed units possible to accommodate application requirements.
- Hydraulic rod ends suited for heavy loads and severe environments.
- Interchangeable with European standards



METRIC SPUR GEARS AND RACKS

- 20° pressure angle metric spur gears modules 1-8
- Bored to size, for weld on hubs or keyless bushing



Hub Type



Plate Type



Gear Rack

HRC SERIES ELASTOMERIC SHAFT COUPLING

The TL Bushed version allows the bushings to be easily installed from flange or hub side. Bored-to-size hubs are also stocked.



- No lube, no maintenance
- Cushions shocks
- Easy installation with Allen wrench and straight edge
- TL Bushing mounted allows easy removal without shaft damage
- Cost efficient



METRIC KEYLESS BUSHINGS

Keyless Bushings offer quick and simple mounting or removal of drive components on straight shafting without a key. The self-centering feature improves balance compared to set screw mounting. When tightened, the resulting interference fit allows high torque, high speed and a zero backlash.



KEY FEATURES

- Attaches to straight bores and shafts. Can be installed over a keyway (keys not required).
- Friction contact between bushing and drive component transmits torque.
- Most units are self-centering as installation occurs, providing a concentric fit and balanced assembly.
- The axial position along the shaft for alignment of driven components is simple. Installation screws can be threaded into the removal threads to loosen the unit on the shaft to adjust alignment.
- Various types allow for heavy torque, minimal diameters or shoulders for positioning the drive component.
- Able to handle both radial and thrust loads.
- Interchangeable with competitive brands

DRIVING PERFORMANCE FORWARD

Anyone can supply or manufacture a product. The PTI difference lies in completely understanding what that component means to your business, and what we can do to ensure the end results you have in mind.

It touches all areas of our business through deep inventory, many years of combined in-house engineering expertise and technical support, quality products, and around-the-clock service.





We Revolve Around You.



www.ptintl.com



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